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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,951	05/04/2001	Gary V. Stephenson	7784-000214	9281
27572	7590	08/25/2004	EXAMINER	
HARNES, DICKEY & PIERCE, P.L.C.			NORRIS, TREMAYNE M	
P.O. BOX 828			ART UNIT	
BLOOMFIELD HILLS, MI 48303			PAPER NUMBER	
			2137	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/849,951

Applicant(s)STEPHENSON ET AL. **Examiner**

Tremayne M. Norris

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/4/2001</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-21,25-27 are rejected under 35 U.S.C. 102(e) as being anticipated by Ghori et al (US pat 6,282,714).

Regarding claim 1, Ghori teaches a method of transmitting data between a first location and a second location comprising:

obtaining a first data stream at said first location (col.15 lines 10-30);
packet compressing said first data stream (col.6 lines 1-2);
sending said packet compressed first data stream to said second location (col.10 lines 46-52);
obtaining a second data stream at said second location (col.6 lines 49-51);
bulk compressing said second data stream (col.8 lines 12-36; col.10 lines 46-52; col.12 lines 15-18), and

sending said bulk compressed second data stream to said first location
(col.8 lines 12-36; col.10 lines 46-52; col.12 lines 15-18).

Regarding claim 2, Ghori teaches framing said first data stream after said step of packet compressing said first data stream and prior to said step of sending said packet compressed first data stream to said second location (col.6 lines 1-6).

Regarding claim 3, Ghori teaches spreading said first data stream after said step of packet compressing said first data stream and prior to said step of sending said packet compressed first data stream to said second location (col.7 lines 7-33).

Regarding claim 4, Ghori teaches spreading step further comprises applying a forward error correction code to said first data stream (col.9 lines 6-9).

Regarding claim 5, Ghori teaches modulating said first data stream after said step of packet compressing said first data stream and prior to said step of sending said packet compressed first data stream to said second location (col.7 lines 14-19).

Regarding claim 6, Ghori teaches spreading said second data stream after said step of bulk compressing said second data stream and prior to said step of

Art Unit: 2137

sending said bulk compressed second data stream to said first location (col.7 lines 7-33; col.8 lines 12-36; col.12 lines 15-18; col.12 lines 39-43).

Regarding claim 7, Ghori teaches applying a forward error correction code to said second data stream (col.9 lines 6-9; col.8 lines 12-36; col.12 lines 15-18; col.12 lines 39-43).

Regarding claim 8, Ghori teaches spreading step further comprises applying a chipping code to said second data stream (col.7 lines 24-26).

Regarding claim 9, Ghori teaches modulating said second data stream after said step of bulk compressing said second data stream and prior to said step of sending said bulk compressed second data stream to said first location (col.7 lines 14-19; col.8 lines 12-36; col.12 lines 15-18; col.12 lines 39-43).

Regarding claim 10, Ghori teaches packet de-compressing said first data stream at said second location (col.13 lines 42-52).

Regarding claim 11, Ghori teaches de-modulating said first data stream prior to said step of de-compressing said first data stream at said second location (col.14 lines 66-67).

Art Unit: 2137

Regarding claim 12, Ghori teaches de-spreading said first data stream prior to said step of de-compressing said first data stream at said second location (col.14 lines 66-67).

Regarding claim 13, Ghori teaches de-spreading step further comprises applying an inverse forward error correction code to said first data stream (col.14 lines 66-67).

Regarding claim 14, Ghori teaches de-framing said first data stream prior to said step of de-compressing said first data stream at said second location (col.14 lines 66-67).

Regarding claim 15, Ghori teaches bulk de-compressing said second data stream at said first location (col.14 lines 66-67).

Regarding claim 16, Ghori teaches de-modulating said second data stream prior to said step of de-compressing said second data stream at said first location (col.14 lines 66-67).

Regarding claim 17, Ghori teaches de-spreading said second data stream prior to said step of de-compressing said second data stream at said first location (col.14 lines 66-67).

Art Unit: 2137

Regarding claim 18, Ghori teaches de-spreading step further comprises applying an inverse chipping code to said second data stream (col.14 lines 66-67).

Regarding claim 19, Ghori teaches de-spreading step further comprises applying an inverse forward error correction code to said second data stream (col.14 lines 66-67).

Regarding claim 20, Ghori teaches packet encrypting said first data stream prior to said step of sending said first data stream to said second location (col.9 lines 3-6).

Regarding claim 21, Ghori teaches bulk encrypting said second data stream prior to said step of sending said second data stream to said first location (col.9 lines 3-6; col.12 lines 15-18; col.12 lines 39-43).

Regarding claim 25, Ghori teaches a communications network including a forward link and a return link, the network comprising:

a packet compressor on said forward link for packet compressing data sent thereover while preserving routing information contained in said data (col.9 lines 10-12; col.10 lines 46-52); and

Art Unit: 2137

a bulk compressor on said return link for bulk compressing data sent thereover to minimize bandwidth consumption (col.8 lines 12-36; col.10 lines 46-52; col.12 lines 15-18).

Regarding claim 26, Ghori teaches a packet encryptor on said forward link for packet encrypting data sent thereover while preserving routing information contained in said data (col.9 lines 3-6; col.9 lines 10-12).

Regarding claim 27, Ghori teaches a bulk encryptor on said return link for bulk encrypting data sent thereover to maximize encryption (col.9 lines 3-6; col.12 lines 15-18; col.12 lines 39-43).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ghori, and further in view of Sachdev (US pat 5,966,442).

Art Unit: 2137

Regarding claim 22, Ghori teaches a method of transmitting data between a first segment and a second segment of a network comprising:

obtaining a first data stream at said first segment (col.15 lines 10-30);

packet compressing said first data stream (col.6 lines 1-2);

sending said packet compressed first data stream to said second segment (col.10 lines 46-52);

packet de-compressing said packet compressed first data stream at said second segment (col.13 lines 42-52);

obtaining a second data stream at said second segment (col.6 lines 49-51);

bulk compressing said second data stream (col.8 lines 12-36; col.10 lines 46-52; col.12 lines 15-18);

sending said bulk compressed second data stream to said first segment (col.8 lines 12-36; col.10 lines 46-52; col.12 lines 15-18); and

bulk de-compressing said bulk compressed second data stream at said first segment (col.13 lines 42-52; col.14 lines 66-67).

Ghori does not teach that the first segment is a ground segment and that the second segment is an airborne segment. Sachdev teaches that the first segment is a ground segment and that the second segment is an airborne segment (fig.2; col.5 lines 33-38). It would have been obvious to one of ordinary skill in the art at the time of the invention to have combine Ghori's digital wireless computer system with Sachdev's information delivery system for aircraft in order to provide a real-time information delivery system to aircraft which does not suffer

from significant range limitations, signal strength variations or horizon blocking problems (Sachdev col.2 lines 30-34).

Regarding claim 23, Ghori and Sachdev in combination teach the method of claim 22, in addition Ghori teaches packet encrypting said first data stream prior to said step of sending said first data stream to said airborne segment (col.9 lines 3-6).

Regarding claim 24, Ghori and Sachdev in combination teach the method of claim 22, in addition Ghori teaches bulk encrypting said second data stream prior to said step of sending said second data stream to said ground segment. (col.9 lines 3-6; col.12 lines 15-18; col.12 lines 39-43).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tremayne M. Norris whose telephone number is (703) 305-8045. The examiner can normally be reached on M-F 7:30AM-5:00PM alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (703) 306-3036. The

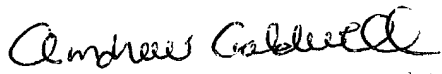
Art Unit: 2137

fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tremayne Norris

August 19, 2004


Andrew Caldwell